#### RAW SEQUENCE LISTING PATENT APPLICATION US/09/444,221

DATE: 05/23/2000 TIME: 13:39:34

INPUT SET: S35530.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

```
SEQUENCE LISTING
1
2
           General Information:
    (1)
 5
          (i) APPLICANT: Murphy, Brian R.
                         Collins, Peter L.
 6
                         Whitehead, Stephen S.
 7
8
                         Bukreyev, Alexander A.
                         Juhasz, Katalin
9
10
         (ii) TITLE OF INVENTION: PRODUCTION OF ATTENUATED RESPIRATORY
11
                 SYNCYTIAL VIRUS VACCINES FROM CLONED NUCLEOTIDE SEQUENCES
12
13
        (iii) NUMBER OF SEQUENCES: 14
14
16
         (iv) CORRESPONDENCE ADDRESS:
               (A) ADDRESSEE: Townsend and Townsend and Crew LLP
17
               (B) STREET: Two Embarcadero Center, 8th Floor
18
19
               (C) CITY: San Francisco
20
               (D) STATE: CA
               (E) COUNTRY: USA
21
               (F) ZIP: 94111-3834
22
23
          (v) COMPUTER READABLE FORM:
24
               (A) MEDIUM TYPE: Floppy disk
25
               (B) COMPUTER: IBM PC compatible
26
               (C) OPERATING SYSTEM: PC-DOS/MS-DOS
27
28
               (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
29
3.0
         (vi) CURRENT APPLICATION DATA:
31
               (A) APPLICATION NUMBER: 09/444,221
32
               (B) FILING DATE: 19-NOV-1999
               (C) CLASSIFICATION:
33
34
35
        (vii) PRIOR APPLICATION DATA:
               (A) APPLICATION NUMBER: US 08/892,403
36
               (B) FILING DATE: 15-JUL-1997
37
38
39
        (vii) PRIOR APPLICATION DATA:
               (A) APPLICATION NUMBER: US 60/047,634
40
41
               (B) FILING DATE: 23-MAY-1997
42
43
        (vii) PRIOR APPLICATION DATA:
               (A) APPLICATION NUMBER: US 60/046,141
44
45
               (B) FILING DATE: 09-MAY-1997
46
```

#### RAW SEQUENCE LISTING PATENT APPLICATION US/09/444,221

DATE: 05/23/2000 TIME: 13:39:34

INPUT SET: S35530.raw

			TITLE DELLE BOOK					
47 48	(vii)	PRIOR APPLICATION DATA: (A) APPLICATION NUMBER: US 60/021,773						
49		(B) FILING DATE: 15-JUL-1996						
50 51	(viii)	ATTORNEY/AGENT INFORMATION:						
52	( • = = = /	(A) NAME: Parmelee, Steven W.						
53		(B) REGISTRATION NUMBER: 31,990						
54 55		(C) REFERENCE/DOCKET NUMBER: 17634-000510						
56	(ix)	TELECOMMUNICATION INFORMATION:						
57 58		(A) TELEPHONE: 206-467-9600 (B) TELEFAX: 415-576-0300						
59		(B) IELEFAX: 413-370-0300						
60								
61 62	(2) INFORMATION FOR SEQ ID NO:1:							
63	(i)	SEQUENCE CHARACTERISTICS:						
64		(A) LENGTH: 15223 base pairs						
65 66		(B) TYPE: nucleic acid (C) STRANDEDNESS: single						
67		(D) TOPOLOGY: linear						
68	(22)	MOT HOUTE MYDE DVA						
69 70	(11)	MOLECULE TYPE: cDNA						
71								
72 73	(aa å )	SEOUENCE DESCRIPTION: SEO ID NO:1:						
73 74	(XI)	SEQUENCE DESCRIPTION: SEQ ID NO:1:						
75	ACGCGAAA	AA ATGCGTACAA CAAACTTGCA TAAACCAAAA AAATGGGGC	A AATAAGAATT	60				
76 77	TGATAAGT	AC CACTTAAATT TAACTCCCTT GGTTAGAGAT GGGCAGCAA	T TCATTGAGTA	120				
78								
79 80	TGATAAAA	GT TAGATTACAA AATTTGTTTG ACAATGATGA AGTAGCATT	G TTAAAAATAA	180				
81	CATGCTAT	AC TGATAAATTA ATACATTTAA CTAATGCTTT GGCTAAGGC	A GTGATACATA	240				
82	033E0333		m ammmccccma	300				
83 84	CAATCAAA	IT GAATGGCATT GTGTTTGTGC ATGTTATTAC AAGTAGTGA	ATTIGCCCIA	300				
85	ATAATAAT	AT TGTAGTAAAA TCCAATTTCA CAACAATGCC AGTACTACA	A AATGGAGGTT	360				
86 87	<b>ል</b> ፐልፕልፕርርር	GA AATGATGGAA TTAACACATT GCTCTCAACC TAATGGTCT	A CTAGATGACA	420				
88								
89	ATTGTGAA	AT TAAATTCTCC AAAAAACTAA GTGATTCAAC AATGACCAA	T TATATGAATC	480				
90 91	AATTATCT	GA ATTACTTGGA TTTGATCTTA ATCCATAAAT TATAATTAA	T ATCAACTAGC	540				
92								
93 94	AAATCAAT	GT CACTAACACC ATTAGTTAAT ATAAAACTTA ACAGAAGAC	A AAAATGGGGC	600				
95	AAATAAAT	CA ATTCAGCCAA CCCAACCATG GACACAACCC ACAATGATA	A TACACCACAA	660				
96	3030003	72 MG2G2G2GAM G2GAGGGMMG MG2GMMG2GA GC2M22777	G 3 mg3 gm3 3 gg	700				
97 98	AGACTGAT(	SA TCACAGACAT GAGACCGTTG TCACTTGAGA CCATAATAA	C ATCACTAACC	720				
99	AGAGACAT	CA TAACACACAA ATTTATATAC TTGATAAATC ATGAATGCA	T AGTGAGAAAA	780				

#### RAW SEQUENCE LISTING PATENT APPLICATION US/09/444,221

DATE: 05/23/2000 TIME: 13:39:35

INPUT SET: S35530.raw

					4	MFUI SEI: SS	issu.ruw
100 101	CTTGATGAAA	AGCAGGCCAC	ATTTACATTC	CTGGTCAACT	ATGAAATGAA	ACTATTACAC	840
102 103 104	AAAGTAGGAA	GCACTAAATA	ТАААААТАТ	ACTGAATACA	ACACAAAATA	TGGCACTTTC	900
105 106	CCTATGCCAA	TATTCATCAA	TCATGATGGG	TTCTTAGAAT	GCATTGGCAT	TAAGCCTACA	960
107 108	AAGCATACTC	CCATAATATA	CAAGTATGAT	CTCAATCCAT	AAATTTCAAC	ACAATATTCA	1020
109 110	CACAATCTAA	AACAACAACT	CTATGCATAA	CTATACTCCA	TAGTCCAGAT	GGAGCCTGAA	1080
111 112	AATTATAGTA	ATTTAAAACT	TAAGGAGAGA	TATAAGATAG	AAGATGGGGC	AAATACAACC	1140
113 114	ATGGCTCTTA	GCAAAGTCAA	GTTGAATGAT	ACACTCAACA	AAGATCAACT	TCTGTCATCC	1200
115 116	AGCAAATACA	CCATCCAACG	GAGCACAGGA	GATAGTATTG	ATACTCCTAA	TTATGATGTG	1260
117 118	CAGAAACACA	TCAATAAGTT	ATGTGGCATG	TTATTAATCA	CAGAAGATGC	TAATCATAAA	1320
119 120	TTCACTGGGT	TAATAGGTAT	GTTATATGCG	ATGTCTAGGT	TAGGAAGAGA	AGACACCATA	1380
121 122	AAAATACTCA	GAGATGCGGG	ATATCATGTA	AAAGCAAATG	GAGTAGATGT	AACAACACAT	1440
123 124	CGTCAAGACA	TTAATGGAAA	AGAAATGAAA	TTTGAAGTGT	TAACATTGGC	AAGCTTAACA	1500
125 126	ACTGAAATTC	AAATCAACAT	TGAGATAGAA	TCTAGAAAAT	CCTACAAAAA	AATGCTAAAA	1560
127 128	GAAATGGGAG	AGGTAGCTCC	AGAATACAGG	CATGACTCTC	CTGATTGTGG	GATGATAATA	1620
129 130	TTATGTATAG	CAGCATTAGT	AATAACTAAA	TTAGCAGCAG	GGGACAGATC	TGGTCTTACA	1680
131 132	GCCGTGATTA	GGAGAGCTAA	TAATGTCCTA	AAAAATGAAA	TGAAACGTTA	CAAAGGCTTA	1740
133 134	CTACCCAAGG	ACATAGCCAA	CAGCTTCTAT	GAAGTGTTTG	AAAAACATCC	CCACTTTATA	1800
135 136	GATGTTTTTG	TTCATTTTGG	TATAGCACAA	TCTTCTACCA	GAGGTGGCAG	TAGAGTTGAA	1860
137 138	GGGATTTTTG	CAGGATTGTT	TATGAATGCC	TATGGTGCAG	GGCAAGTGAT	GTTACGGTGG	1920
139 140	GGAGTCTTAG	CAAAATCAGT	TAAAAATATT	ATGTTAGGAC	ATGCTAGTGT	GCAAGCAGAA	1980
141 142	ATGGAACAAG	TTGTTGAGGT	TTATGAATAT	GCCCAAAAAT	TGGGTGGTGA	AGCAGGATTC	2040
143 144	TACCATATAT	TGAACAACCC	AAAAGCATCA	TTATTATCTT	TGACTCAATT	TCCTCACTTC	. 2100
145 146	TCCAGTGTAG	TATTAGGCAA	TGCTGCTGGC	CTAGGCATAA	TGGGAGAGTA	CAGAGGTACA	2160
147 148	CCGAGGAATC	AAGATCTATA	TGATGCAGCA	AAGGCATATG	CTGAACAACT	CAAAGAAAAT	2220
149 150	GGTGTGATTA	ACTACAGTGT	ACTAGACTTG	ACAGCAGAAG	AACTAGAGGC	TATCAAACAT	2280
151 152	CAGCTTAATC	CAAAAGATAA	TGATGTAGAG	CTTTGAGTTA	ATAAAAAATG	GGGCAAATAA	2340

#### RAW SEQUENCE LISTING PATENT APPLICATION US/09/444,221

DATE: 05/23/2000 TIME: 13:39:35

INPUT SET: S35530.raw

ATCATCATGG AAAAGTTTGC TCCTGAATTC CATGGAGAAG ATGCAAACAA CAGGGCTACT AAATTCCTAG AATCAATAAA GGGCAAATTC ACATCACCCA AAGATCCCAA GAAAAAAGAT AGTATCATAT CTGTCAACTC AATAGATATA GAAGTAACCA AAGAAAGCCC TATAACATCA AATTCAACTA TTATCAACCC AACAAATGAG ACAGATGATA CTGCAGGGAA CAAGCCCAAT TATCAAAGAA AACCTCTAGT AAGTTTCAAA GAAGACCCTA CACCAAGTGA TAATCCCTTT TCTAAACTAT ACAAAGAAAC CATAGAAACA TTTGATAACA ATGAAGAAGA ATCCAGCTAT TCATACGAAG AAATAAATGA TCAGACAAAC GATAATATAA CAGCAAGATT AGATAGGATT GATGAAAAAT TAAGTGAAAT ACTAGGAATG CTTCACACAT TAGTAGTGGC AAGTGCAGGA CCTACATCTG CTCGGGATGG TATAAGAGAT GCCATGGTTG GTTTAAGAGA AGAAATGATA GAAAAAATCA GAACTGAAGC ATTAATGACC AATGACAGAT TAGAAGCTAT GGCAAGACTC AGGAATGAGG AAAGTGAAAA GATGGCAAAA GACACATCAG ATGAAGTGTC TCTCAATCCA ACATCAGAGA AATTGAACAA CCTATTGGAA GGGAATGATA GTGACAATGA TCTATCACTT GAAGATTTCT GATTAGTTAC CAATCTTCAC ATCAACACA AATACCAACA GAAGACCAAC AAAACAACCA GCCAATCCAA AACTAACCAC CCGGAAAAAA TCTATAATAT AGTTACAAAA AAAGGAAAGG GTGGGGCAAA TATGGAAACA TACGTGAACA AGCTTCACGA AGGCTCCACA TACACAGCTG CTGTTCAATA CAATGTCTTA GAAAAAGACG ATGACCCTGC ATCACTTACA ATATGGGTGC CCATGTTCCA ATCATCTATG CCAGCAGATT TACTTATAAA AGAACTAGCT AATGTCAACA TACTAGTGAA ACAAATATCC ACACCCAAGG GACCTTCACT AAGAGTCATG ATAAACTCAA GAAGTGCAGT GCTAGCACAA ATGCCCAGCA AATTTACCAT ATGCGCTAAT GTGTCCTTGG ATGAAAGAAG CAAACTAGCA TATGATGTAA CCACACCCTG TGAAATCAAG GCATGTAGTC TAACATGCCT AAAATCAAAA AATATGTTGA CTACAGTTAA AGATCTCACT ATGAAGACAC TCAACCCTAC ACATGATATT ATTGCTTTAT GTGAATTTGA AAACATAGTA ACATCAAAAA AAGTCATAAT ACCAACATAC CTAAGATCCA TCAGTGTCAG AAATAAAGAT CTGAACACC TTGAAAATAT AACAACCACT GAATTCAAAA ATGCTATCAC AAATGCAAAA ATCATCCCTT ACTCAGGATT ACTATTAGTC ATCACAGTGA CTGACAACAA AGGAGCATTC AAATACATAA AGCCACAAAG TCAATTCATA GTAGATCTTG GAGCTTACCT AGAAAAAGAA 

### RAW SEQUENCE LISTING PATENT APPLICATION US/09/444,221

DATE: 05/23/2000 TIME: 13:39:35

#### INPUT SET: S35530.raw

					4	INPUT SET: S35.	530.raw
206 207 208	AGTATATATT	ATGTTACCAC	AAATTGGAAG	CACACAGCTA	CACGATTTGC	AATCAAACCC	4020
209 210	ATGGAAGATT	AACCTTTTTC	CTCTACATCA	GTGTGTTAAT	TCATACAAAC	TTTCTACCTA	4080
211 212	CATTCTTCAC	TTCACCATCA	CAATCACAAA	CACTCTGTGG	TTCAACCAAT	CAAACAAAAC	4140
213 214	TTATCTGAAG	TCCCAGATCA	TCCCAAGTCA	TTGTTTATCA	GATCTAGTAC	TCAAATAAGT	4200
215 216	TAATAAAAA	TATACACATG	GGGCAAATAA	TCATTGGAGG	AAATCCAACT	AATCACAATA	4260
217 218	TCTGTTAACA	TAGACAAGTC	CACACACCAT	ACAGAATCAA	CCAATGGAAA	ATACATCCAT	4320
219 220	AACAATAGAA	TTCTCAAGCA	AATTCTGGCC	TTACTTTACA	CTAATACACA	TGATCACAAC	4380
221 222	AATAATCTCT	TTGCTAATCA	TAATCTCCAT	CATGATTGCA	ATACTAAACA	AACTTTGTGA	4440
223 224				GTTACCAAGA			4500
225 226				CTTGCATTTA			4560
227 228		_		GCAAACCACT			4620
229 230				ATATCAAGAC			4680
231 232				GCACCGCTAA			4740
233 234				CGTGCTTATA			4800
235 236				TGATAATCTC			4860
237 238				AAGTCACACC			4920
239 240				CAACATACCT			4980
241 242				CATCACAAAT			5040
243 244				CCACAACAGT			5100
245 246				CAAAACAACG			5160
247 248				TCAACTTTGT			5220
249 250				GAATACCAAA			5280
251 252				TCAAGACAAC			5340
253 254						ACCATCAACA	5400
255 256				TCACCTCCAA			5460
257 258	TCACAAGTCA	AATGGAAACC	TTCCACTCAA	CTTCCTCCGA	AGGCAATCCA	AGCCCTTCTC	5520

# SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/09/444,221

DATE: 05/23/2000 TIME: 13:39:36

INPUT SET: S35530.raw

Line Error

Original Text

# SEQUENCE MISSING ITEM REPORT PATENT APPLICATION US/09/444,221

DATE: 05/23/2000 TIME: 13:39:36

INPUT SET: S35530.raw

< < THERE ARE NO ITEMS MISSING >>

# SEQUENCE CORRECTION REPORT PATENT APPLICATION US/09/444,221

DATE: 05/23/2000 TIME: 13:39:36

INPUT SET: S35530.raw

Line

Original Text

Corrected Text